

REMARKS/ARGUMENTS

The claims remain as 1-23.

Claim 7 is amended to depend from claim 14. Basis is inherent in the original claim structure.

Claim 14 is amended to be independent by incorporating the appropriate part of Claim 1 from which it depended. In addition, characterizing language "high shear energy" is added based on the disclosure in the paragraph at page 7, line 8. The term is purely descriptive since the specific energy input is recited. No new issue is raised. In addition, the claim identifies the powder as one of those recited in original claims 2-5.

It is requested that the citation AW (Ullman's Enz.) be initialed on the PTO-1449 considered April 18, 2005. A copy is attached for the Examiner's convenience.

Claim Objections

Reconsideration and withdrawal of the objection to Claim 14 under 37 C.F.R. § 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim are requested.

The claim has here been rewritten to comply with the stated criticism and requirement.

Claim Rejections - 35 U.S.C. § 102

(1) Reconsideration and withdrawal of the rejection of Claims 1-7, 14-16 and 20-23 under 35 U.S.C. § 102(b) as being anticipated by Mangold et al. (EP 1048617) are requested.

The product of the process disclosed in EP 1048617 is one of the alternative starting materials from which the subject product is made, please see the paragraph at page 3, line 18.

The above dispersion is then processed with high energy impact as described in the paragraph at page 7, lines 8 and 18 and exemplified in the paragraph bridging pages 7 and 8 and in the following paragraph.. This appears in all the claims, either explicitly or through dependency. This is not disclosed by Mangold et al.

Hence the preparatory processes are not the same.

Hence there is no anticipation by Mangold et al.

It is further noted that the primary crystalline size disclosed in the EP document is not the same as the particle size. A particle is an agglomeration of intergrown primary particles (crystallites), the EP document, paragraph [0003] at col. 1, line 14, see the corresponding CA document, the paragraph at page 1, line 14.

It is also noted that the powders recited in Claims 3, 4 and 5 are clearly not disclosed by EP 1048617. Mere speculation that they might be the same material is insufficient to support anticipation. Thus, in the submitted CA 2,285,792, corresponding to DE 19547161, doping requires an aqueous aerosol of an aluminum salt. Mullite is made by sintering or electrofusion, Deller et al., see below, was allowed despite the well known existence of mullite.

(2) Reconsideration and withdrawal of the rejection of Claims 1-7, 14-16 and 20-23 under 35 U.S.C. § 102(e) as being anticipated by Deller et al. (U.S. 6,455,455) are also requested.

The Deller et al. disclosure corresponds that that of Mangold et al. (EP 1048617). Both rely upon the same priority document, DE 19919635. The inventors are the same, though their names are ordered differently.

Applicants' remarks therefore apply here, with particular reference to the paragraph at column 1, line 23, identical with the corresponding paragraphs in the CA and EP documents, noted above.

There is no anticipation by Deller et al.

Reconsideration and withdrawal of the rejection of Claims 1-2, 4-5, 7-9, 14-17 and 20-22 under 35 U.S.C. § 102(e) as being anticipated by Pryor (U.S. 6,294,106) are again requested.

While Pryor et al. indicate that mixed inorganic oxides can be prepared from mixing inorganic oxides, including SiO₂, Al₂O₃, MgO, SO₂, Al₂O₃ or from porous gels such as SiO₂, Hf₂O₃, AlPO₄, MgO, TiO₂, and ZnO₂ (column 3, lines 50 to 60), there is no example of forming a silicon-aluminum mixed oxide powder, nor even a general statement, that will lead one to the structure here recited, namely a structure characterized by one possessing Si-O-Al bonds and silicon dioxide regions, which are at least in part amorphous or crystalline aluminum oxide regions. In fact, Pryor emphasizes the patentee's invention enables one to prepared a polish for various materials from "one material, e.g. silica, without having to add other essential abrasives", column 6, the sentence at line 58.

Silica/alumina cogels are noted, merely as "parent" substances referring to U.S. Patent 4,226,743 to Seese et al.

Fumed inorganic oxides can also be chosen as "parent inorganic oxides", but the silicon and aluminum compounds are recited as alternatives, column 4, lines 40 and 41.

Simply because Pryor contains statements which can, in hindsight, be argued or construed as covering the recited structure, appears to be insufficient to support a conclusion that Pryor discloses such a structure sufficiently to constitute anticipation of the subject matter here claimed. The standard for finding anticipation in a prior art reference is reviewed in the section in the second column on page 2100-73 of the M.P.E.P., 8th Ed., Rev. 2, May 2004, which is headed "To Anticipate a Claim, the Reference Must Teach Every Element of the Claim." The Heck citation relied in the Official Action is not relevant to the above

central issue. Lacking specific embodiments, the broad disclosure in Pryor et al. is insufficiently specific to constitute a disclosure of the required structure elements.

Certainly Pryor does not disclose the specific powders of claims 2-5, also recited in claim 14 as amended. The “composition itself”, referred to in the Official Action, is defined by structure as well as chemically, and is not shown to be disclosed by the reference.

Applicants submit that there is no anticipation.

Claim Rejections - 35 U.S.C. § 103

1. Reconsideration and withdrawal of the rejection of Claims 8-13 and 17-19 under 35 U.S.C. § 103(a) as being unpatentable over Mangold et al. (EP 1048617) as applied to Claim 1 above, and further in view of Minami et al. (JP 2000-265161) or Itakura et al. (JP 2000-133621) or Naoyuki et al. (JP 2000-109810) are requested.

Since, as pointed out above, the primary reference does not disclose the subject aqueous dispersion, and the noted subordinate disclosures relate only to additional aspects set forth in subordinate claims, the combination of references does not support a maintainable rejection under Section 103, in Applicants’ view.

2. Reconsideration and withdrawal of the rejection of Claims 3, 6, 10-11, 18-19 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Pryor (U.S. 6,294,106) as applied to Claim 1 above, and further in view of either Sakatani et al. (U.S. 5,804,513) or Minami et al. (JP 2000-165161) are also requested.

Minami et al. appears to be the same document as Fukugaku et al. previously relied upon.

As previously stated, Fukugaku et al. (Minami et al.) do not disclose the structure of Applicants’ particles. They disclosed “mixed crystal”, i.e. solid solution, structure. The

modification of the Pryor et al. disclosure in light thereof therefore cannot lead to Applicants' products.

As for Sakatani et al., since Pryor et al. do not disclose the structure specified for the particles in Applicants' claims, modifications relating to pH control or to additives disclosed by the subordinate reference Sakatani et al. do not support the rejection. It is not at all evident that the "predominance of alpha and gamma forms (of) alumina in the CMP slurries" in Sakatani, as stated in the Official Action, has any pertinence to Pryor et al. since alumina as such is not disclosed by Pryor et al. to exist in their particles prepared by the "conventional blending or cogelling procedures." The Sakatani invention relates to an aluminum or silica particle containing in addition cerium in or on the particle. This does not suggest Applicants' claimed particle structure, nor is it relevant for Pryor whose particles are autoclaved porous particles.

3. Reconsideration and withdrawal of the rejection of Claims 10-13 under 35 U.S.C. § 103(a) as being unpatentable over Pryor (U.S. 6,294,106) as applied to Claim 1 above, and further in view of either Kaufmann et al. (U.S. 5,783,489) or Cote et al. (U.S. 6,375,693) are also requested.

As urged above, since Pryor does not disclose the basic dispersed powder, modifications relating to additional feature or uses relating to subordinate claims, urged to be shown in the subordinate references, are insufficient to sustain the stated rejection.

Double Patenting

Reconsideration and withdrawal of the rejection of Claims 1-2, 4, 7, 16 and 22 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-4 and 6-7 of U.S. Patent No. 6,455,455 are requested.

Application No. 10/078,373
Reply to Office Action of May 4, 2005

The rejection acknowledges that the assertedly conflicting claims are not identical. The mere statement that “they are not patentably distinct” is unsupported by any argument or evidence in support thereof. In particular, the recited energy input is essential for achieving Applicants’ results. The rejection appears to be unsustainable.

Reconsideration and withdrawal of the rejection of Claims 1, 7-9, 13, 21 and 23, provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 3-5 and 9 of copending Application No. 10/354,969, are requested.

The copending application is junior to the subject application with a different inventorship and drawn to a specific aspect where a powder dispensed in a slurry is pyrogenically produced SiO_2 doped with a 0.1-3 wt.% Al_2O_3 the slurry pH being 8.5-11. Allowance of a junior application under such circumstances cannot be a bar to a broader prior invention.

To sustain such a rejection, a two-way obviousness double patenting test must be applied, please see the M.P.E.P. 8th Ed., May 2004 Rev., Section 804, II, B(b), page 800-23.

Note also that the copending application was allowed over the disclosure in the publication U.S. 2002/0121156 A1 of SN 10/078,373, the subject application.

Application No. 10/078,373
Reply to Office Action of May 4, 2005

Entry of the amendment as raising no new issues and as reducing the issues and favorable reconsideration are solicited.

Respectfully submitted,

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MAIER & NEUSTADT, P.C.
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Customer Number

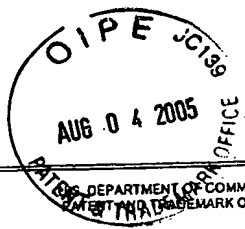
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A handwritten signature in cursive script, appearing to read "Milton Serman", is written over a horizontal line.

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SHEET 1 OF 1

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

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SERIAL NO.

10/078,373

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Frank MENZEL, et al.

FILING DATE

February 21, 2002

GROUP

1751

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
KW	AA	5,891,205	4/1999	Picardi et al			
KW	AB	5,382,272	1/1995	Cook et al			
KW	AC	5,858,813	1/1999	Scherber et al			
KW	AD	5,954,997	9/1999	Kaufman et al			
	AE						
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AQ					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	Ullmann's Enz. tech. Chem., 4 th Ed., vol A23, pp. 694-696
	AX	
	AY	
	AZ	

☐ Additional References sheet(s) attached

Examiner

Date Considered

04/18/2005

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.